

Amendments to the Specification:

Please replace the paragraph at page 9, from line 21 through line 26, with the following paragraph:

-- FIG. 1 represents the nucleotide and deduced amino acid sequence of a human P2Y₄ receptor according to the invention, SEQ ID NO:1 and SEQ ID NO:2, respectively. The putative membrane-spanning domains are underlined and numbered I to VII. The consensus sequence conserved between all the P2Y receptors and the three amino acids (AHN) corresponding to the RGD sequence in the first extracellular loop of the P2Y₂ receptor are represented in bold. The putative phosphorylation sites by PKC or by calmodulin-dependent protein kinases and PKC are indicated respectively by black squares (■) and by open circles (O). --

Please add the following new paragraph at page 14, between lines 17 and page 15, line 2:

-- In order to isolate new subtypes of P2 receptors, sets of degenerate oligonucleotide primers were synthesized on the basis of the best conserved segments in the published sequences of the chick brain P2Y₁ (5) and murine neuroblastoma P2Y₂ (9) receptors. These primers were used in low-stringency PCR on human genomic DNA as described (18). Some combinations generated discrete bands with a size compatible with that expected for P2 receptors. For example, the primer [5'-CAGATCTAGATA(CT)ATGTT(CT)(AC)A(CT)(CT)T(ACGT) GC-3] (SEQ ID NO:3) corresponding to the second transmembrane region and the primer [5'-TCTTAAGCTTGG(AG)TC(ACG- T)A(CG)(AG)CA(AG)CT(AG) TT-3'] (SEQ ID NO:4) corresponding to the seventh transmembrane region amplified a 712 bp fragment. The partial sequences obtained after sequencing were translated into peptidic sequences and compared to a local databank which contains G protein-coupled receptor sequences. Most of the clones resulting from these PCR products encoded a part of a new receptor

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which displayed 58% identity with the murine P2Y2 receptor and 42% identity with the chick P2Y1 receptor partial sequences. In addition, some clones encoded a peptidic sequence presenting 87% identity with the chick P2Y1 receptor and are therefore believed to represent fragments of the human P2Y1 gene. --